

PTO/SB/08A (07-05)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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**Complete if Known**

Application Number	10/674,154
Filing Date	September 29, 2003
First Named Inventor	Felix A. Perriello
Art Unit	1724
Examiner Name	Chester T. Barry
Attorney Docket Number	GLOB 63966

Sheet 1 of 6

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
CTB		US- 2,474,833	07-05-1949	Eweson	
		US- 2,947,619	08-02-1960	Gorby	
		US- 2,969,279	01-24-1961	Pierson	
		US- 3,138,448	06-23-1964	Schulze	
		US- 3,183,171	05-11-1965	Schreiner	
		US- 3,184,891	05-25-1965	Frantzen	
		US- 3,185,117	05-25-1965	Frantzen	
		US- 3,198,620	08-03-1965	Larson	
		US- 3,235,369	02-15-1966	Eweson	
		US- 3,242,071	03-22-1966	Walker	
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		US- 3,661,549	05-09-1972	Freytag et al.	
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**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
CTB		EP 0098138	01-11-1984	Exxon Research&Engin'ring		
		DE 4142063	12-19-1991	Wisstrans Umwelt GmbH		
		DE 4203830	08-1993	Kneer Franz		
		JP 07050955	02-1995	Nagaura		
		WO 9719036	05-1997	Helsinki Univ.		
CTB		JP 10306003	11-1998	Yazawa et al.		

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Sheet **2** of **6****Complete if Known**

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CTB		US- 3,813,290	05-28-1974	Heilweil et al.	
		US- 3,824,092	07-16-1974	Wikstrom et al.	
		US- 3,846,290	11-05-1974	Raymond	
		US- 3,969,446	07-13-1976	Franklin Jr.	
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		US- 4,111,808	09-05-1978	Fair	
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		US- 4,454,077	06-12-1984	Litz	
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		US- RE 31,924	06-25-1985	Starr	
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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
CTB		DE 19857870	06-2000	Res & Dev Renewable		
CTB		WO 03/037066	05-08-2003	Perriello et al.		
CTB		WO 03/053143	07-2003	Perriello		

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CFB		US- 4,737,289	04-12-1988	Castaldi et al.	
		US- 4,789,478	12-06-1988	Revis et al.	
		US- 4,790,940	12-13-1988	Castaldi et al.	
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		US- 5,006,250	04-09-1991	Roberts et al.	
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## FOREIGN PATENT DOCUMENTS

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**CHESTER T. BARRY**

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CTB		US- 5,302,179	04-12-1994	Wagner	
		US- 5,302,286	04-12-1994	Semprini et al.	
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		US- 5,651,890	07-29-1997	Trost	
CTB		US- 5,660,730	08-26-1997	Lucchese et al.	

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CTB		US- 5,678,632	10-21-1997	Moses et al.	
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		US- 6,105,309	08-22-2000	Takayanagi	
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CJB		US- 6,194,197	02-27-2001	Hyman et al.	
		US- 6,200,475	03-13-2001	Chen	
		US- 6,217,766	04-17-2001	Stetter et al.	
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CJB		US-			
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				Filing Date	09/29/03
				First Named Inventor	Felix A. Perriello
				Group Art Unit	1724
				Examiner Name	CHESTER T. BARRY PRIMARY EXAMINER
Sheet	1	of	3	Attorney Docket Number	GLOB 63966

U.S. PATENT DOCUMENTS						
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		Number	Kind Code <sup>2</sup> (if known)			
6		5,888,396		Perriello	03-30-1999	
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		Publication No. 2001/0023847		Perriello	09-27-2001	
	Publication No. 2002/0066566		Perriello	06-06-2002		
6		Publication No. 2002/0195389		Perriello	12-26-2002	

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B		Publication No. 2003/0034301		Perriello	02-20-2003	
		Publication No. 2003/0044966		Perriello	03-06-2003	
		Publication No. 2003/0062306		Perriello	04-03-2003	
		Publication No. 2003/0066322		Perriello	04-10-2003	
		Publication No. 2003/0084609		Perriello et al.	05-08-2003	
		Publication No. 2003/0136735		Perriello	07-24-2003	
b		Publication No. 2003/0167686		Perriello	09-11-2003	

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B		Publication No. 2003/0234217		Perriello	12-25-2003	

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CTB		WILSON ET AL., "Biotransformation of Trichloroethylene in Soil," <i>Applied and Environmental Microbiology</i> , January, 1985; p.242-243, Vol. 49, No. 1.	
		NELSON ET AL., "Aerobic Metabolism of Trichloroethylene by a Bacterial Isolate," <i>Applied and Environmental Microbiology</i> , August 1986, p. 383-384, Vol. 52.	
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		ARCIERO ET AL. "Degradation of Trichloroethylene by the Ammonia-Oxidizing Bacterium <i>Nitrosomonas europaea</i> ," <i>Biochemical and Biophysical Research Communications</i> , March 15, 1989; p. 640-643, Vol. 159, No. 2.	
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		TSIEN ET AL., "Biodegradation of Trichloroethylene by <i>Methylosinus trichosporium</i> OB3b," <i>Applied and Environmental Microbiology</i> , December 1989; p. 3155-3161, Vol. 55, No. 12.	
		VANNELLI ET AL., "Degradation of Halogenated Aliphatic Compounds by the Ammonia-Oxidizing Bacterium <i>Nitrosomonas europaea</i> ," <i>Applied and Environmental Microbiology</i> , April 1990; p. 1169-1171, Vol. 56, No. 4.	
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GPB		BROHOLM ET AL., "Toxicity of 1,1,1-Trichloroethane and Trichloroethene on a Mixed Culture of Methane-Oxidizing Bacteria", <i>Applied and Environmental Microbiology</i> , August 1990, p. 2488-2493, Vol. 56, No. 8.	
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GPB		HAMAMURA ET AL., "Diversity in Butane Monooxygenases Among Butane-Grown Bacteria," <i>Applied and Environmental Microbiology</i> , October 1999; p. 4586-4593, Vol. 65, No. 10.	

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CB		LÖFFLER ET AL., "16S rRNA Gene-Based Detection of Tetrachloroethene-Dechlorinating <i>Desulfuromonas</i> and <i>Dehalococcoides</i> Species," <i>Applied and Environmental Microbiology</i> , April 2000; p. 1369-1374, Vol. 66, No. 4.	
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
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		Application Number	10/674,154	
		Filing Date	September 29, 2003	
		First Named Inventor	Felix A. Perriello	
		Group Art Unit	1724	
		Examiner Name	Chester T. Barry	
Sheet	6	10	Attorney Docket Number	GLOB 63966

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>1</sup>
6		MIGUEZ ET AL., "Monitoring Methanotrophic Bacteria in Hybrid Anaerobic-Aerobic Reactors with PCR and a Catabolic Gene Probe", <i>Applied and Environmental Microbiology</i> , February 1999, p. 381-388, Vol. 65, No. 2. [ABSTRACT]	
		BEDARD ET AL., "Brominated Biphenyls Prime Extensive Microbial Reductive Dehalogenation of Aroclor 1260 in Housatonic River Sediment", <i>Applied and Environmental Microbiology</i> , May 1998, p. 1786-1795, Vol. 64, No. 5. [ABSTRACT]	
		WU ET AL., "Microbial Reductive Dechlorination of Aroclor 1260 in Anaerobic Slurries of Estuarine Sediments", <i>Applied and Environmental Microbiology</i> , March 1998, p. 1052-1058, Vol. 64, No. 3. [ABSTRACT]	
		SANFORD ET AL., "Characterization of Desulfotobacterium chlororespirans sp. nov., Which Grows by Coupling the Oxidation of Lactate to the Reductive Dechlorination of 3-chloro-4-hydroxybenzoate", <i>Applied and Environmental Microbiology</i> , October 1996, p. 3800-3808, Vol. 62, No. 10. [ABSTRACT]	
		NICHOLSON ET AL., "Reductive Dechlorination of Chlorophenols by a Pentachlorophenol-Acclimated Methanogenic Consortium", <i>Applied and Environmental Microbiology</i> , July 1992, p. 2280-2286, Vol. 58, No. 7. [ABSTRACT]	
		VON WINTZINGERODE ET AL., "Phylogenetic Analysis of an Anaerobic, Trichlorobenzene-Transforming Microbial Consortium", <i>Applied and Environmental Microbiology</i> , January 1999, p. 283-286, Vol. 65, No. 1. [ABSTRACT]	
6		BEDARD ET AL., "Complete Reductive Dehalogenation of Brominated Biphenyls by Anaerobic Microorganisms in Sediment", <i>Applied and Environmental Microbiology</i> , March 1998, p. 940-947, Vol. 64, No. 3. [ABSTRACT]	

Examiner Signature	CHESTER T. BARRY PRIMARY EXAMINER	Date Considered	8/10/05
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Sheet	7	10	Attorney Docket Number	GLOB 63966

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5		VAN EEKERT ET AL., "Degradation and Fate of Carbon Tetrachloride in Unadapted Methanogenic Granular Sludge", <i>Applied and Environmental Microbiology</i> , July 1998, p. 2350-2356, Vol. 64, No. 7. [ABSTRACT]	
		BRADLEY ET AL., "Anaerobic Oxidation of [1,2- <sup>14</sup> C]Dichloroethene Under Mn(IV)-Reducing Conditions", <i>Applied and Environmental Microbiology</i> , April 1998, p. 1560-1562, Vol. 64, No. 4. [ABSTRACT]	
		FISH ET AL., "Biotransformations of Aroclor 1242 in Hudson River Test Tube Microcosms", <i>Applied and Environmental Microbiology</i> , December 1994, p. 4289-4296, Vol. 60, No. 12. [ABSTRACT]	
		LOCHER ET AL., "Uptake of 4-Toluene Sulfonate by Comamonas testosteroni T-2", <i>J. Bacteriol.</i> , February 1993, p. 1075-1080, Vol. 175, No. 4. [ABSTRACT]	
		SUN ET AL., "Isolation and Characterization of <i>Desulfovibrio dechloracetivorans</i> sp. nov., a Marine Dechlorinating Bacterium Growing by Coupling the Oxidation of Acetate to the Reductive Dechlorination of 2-Chlorophenol", <i>Applied and Environmental Microbiology</i> , June 2000, p. 2408-2413, Vol. 66, No. 6. [ABSTRACT]	
		BOYLE ET AL., "Isolation from Estuarine Sediments of a <i>Desulfovibrio</i> Strain Which Can Grow on Lactate Coupled to the Reductive Dehalogenation of 2,4,6-Tribromophenol", <i>Applied and Environmental Microbiology</i> , March 1999, p. 1133-1140, Vol. 65, No. 3. [ABSTRACT]	
5		COLE ET AL., "Isolation and Characterization of a Novel Bacterium Growing Via Reductive Dehalogenation of 2-Chlorophenol", <i>Applied and Environmental Microbiology</i> , October 1994, p. 3536-3542, Vol. 60, No. 10. [ABSTRACT]	

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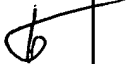
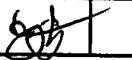
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		DOJKA ET AL., "Microbial Diversity in a Hydrocarbon- and Chlorinated-Solvent-Contaminated Aquifer Undergoing Intrinsic Bioremediation", <i>Applied and Environmental Microbiology</i> , October 1998, p. 3869-3877, Vol. 64, No. 10. [ABSTRACT]	
		HUR ET AL., "Metabolism of Chlorofluorocarbons and Polybrominated Compounds by <i>Pseudomonas putida</i> G786(pHG-2) via an Engineered Metabolic Pathway", <i>Applied and Environmental Microbiology</i> , November 1994, p. 4148-4154, Vol. 60, No. 11. [ABSTRACT]	
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		HOLLIGER ET AL., "A Highly Purified Enrichment Culture Couples the Reductive Dechlorination of Tetrachloroethene to Growth", <i>Applied and Environmental Microbiology</i> , September 1993, p. 2991-2997, Vol. 59, No. 9. [ABSTRACT]	
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		MOHN ET AL., "Limited Degradation of Chlorophenols by Anaerobic Sludge Granules", <i>Applied and Environmental Microbiology</i> , July 1992, p. 2131-2136, Vol. 58, No. 7. [ABSTRACT]	
		BAKER ET AL., <i>Bioremediation</i> , pp. 303-304, McGraw-Hill, Inc., 1994.	

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		<a href="http://www.biobutane.com/may2000.htm">www.biobutane.com/may2000.htm</a> (downloaded on 11/18/02) dated 05/01/2000.	
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		Air & Waste Management Association Show New Products information sheet (posted June 25, 1999) at <a href="http://www.pollutionengineering.com/events/conferences/awma99/awmanp6.htm">www.pollutionengineering.com/events/conferences/awma99/awmanp6.htm</a> (downloaded 11/18/02).	
		WILSON ET AL., "Biological Treatment of Trichloroethylene and 1,1,1-Trichloroethane from Contaminated Air Streams", <i>Proceedings of Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Detection and Restoration</i> (The Westin Galleria, Houston, November 9-11, 1988), v2, pages 823-831, published 1989.	
		TODAR, 2002, <i>Pseudomonas aeruginosa</i> at <a href="http://www.bact.wisc.edu/Bact330/lecturepseudomonas">http://www.bact.wisc.edu/Bact330/lecturepseudomonas</a>	
		TOCCALINO ET AL., "Nitrogen Limitation and Nitrogen Fixation during Alkane Biodegradation in a Sandy Soil", <i>Applied and Environmental Microbiology</i> , September 1993; pp. 2977-2983, Vol. 59, No. 9.	
		CARY ET AL., "Mussel growth supported by methane as sole carbon and energy source", <i>Science</i> , 240:78-80, 1988.	
		SCHMIDT ET AL., "Gas hydrates and methane plumes at Hydrate Ridge", 13 pages, 2004.	

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5		Anonymous, "Lost City Expedition: Sampling Gases from the Seafloor: Rock-Microbe Linkages", undated, <a href="http://www.lostcity.washington.edu/science/instruments/shipboardsamplers/gasesfromseafloor.html">http://www.lostcity.washington.edu/science/instruments/shipboardsamplers/gasesfromseafloor.html</a>	

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